

REMARKS

Claims 4, 6, 7 and 9 are pending in the present application. Claims 4, 6, 7 and 9 are herein amended. Claims 5 and 8 are herein cancelled.

Claim Rejections - 35 U.S.C. § 103

Claims 4, 5, 7 and 8 were rejected under 35 U.S.C. § 103(a) as being unpatentable over **Maeda** (U.S. Patent 5,317,519) in view of **Frisken-Gibson**, *Using Linked Volumes to Model Object Collisision, Deformation, Cutting, Carving, and Joining*, IEEE Transactions on Visualization and Computer Graphics, vol. 5, no. 4, (1999); claims 6 and 9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over **Maeda** in view of **Frisken-Gibson**, further in view of **Schroeder**, *Decimation of Triangle Meshes*, Computer Graphics, vol. 26 (1992), and further in view of **Hoffman**, *Geometric and Solid Modeling*, Morgan Kaufman Publishers, (1989).

Favorable reconsideration is requested.

Claims 4 and 7 have been amended to include the limitations of claims 5 and 8 respectively. Amended claims 4 and 7 recite “a surface lattice point extracting section” and “wherein the shape data generating section generates the post-machining three-dimensional shape data for the workpiece on the basis of three-dimensional coordinate data and connection information for the surface lattice points.”

Applicants respectfully submit that neither Maeda nor Frisken-Gibson disclose
a surface lattice point extracting section which extracts surface lattice points defining surfaces of the workpiece to be obtained after the machining on the basis of the connection information for the remaining lattice points after the connection information for the remaining lattice points is updated by the tool path processing section

as recited in amended claims 4 and 7.

Maeda discloses that three-dimensional data is expressed as a Z-directional height, an X-address and a Y-address. (Col. 4, lines 18-29.) The material shape is expressed in the form of blocks. (Figs. 4, 20A-C). Maeda does not disclose extracting surface lattice points defining surfaces of the workpiece to be obtained.

The Office Action cites Figs. 4 and 20A-C for disclosing this feature. However, as can be seen from these figures, the shape is expressed in the form of blocks having an X-/Y-address and a Z-value. In Fig. 20A, the expression of the shape is maintained in the form of blocks. Maeda does not disclose extracting data which defines surfaces of the workpiece.

Therefore, Maeda in view of Frisken-Gibson does not disclose the elements as recited in claims 4 and 7.

For at least the foregoing reasons, claims 4 and 7 are patentable over the cited references, and claims 6 and 9 are patentable by virtue of their dependence from claims 4 and 7 respectively.

Accordingly, withdrawal of the rejection of claims 4, 6, 7 and 9 is hereby solicited.

Amendment
Application No. 10/034,122
Attorney Docket No. 011452

In view of the aforementioned amendments and accompanying remarks, Applicants submit that the claims, as herein amended, are in condition for allowance. Applicants request such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney to arrange for an interview to expedite the disposition of this case.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,
WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP



Andrew G. Melick
Attorney for Applicants
Registration No. 56,868
Telephone: (202) 822-1100
Facsimile: (202) 822-1111

AGM/tw